ITS Technical Bulletin

REQUIRING DNS NAMES
TO ACCESS STATE MAINFRAME COMPUTERS

Number: 289
Issued Date: March 1, 2001
Effective Date: March 5, 2001
Submitted By: Terry Mills and Michael Mower
Approved By: Jim Calaway

Information Technology Services (ITS) would like to provide its customers:

- ?   higher availability by providing multiple network paths to the mainframes;
- ?   increase performance thru the use of higher speed (100 Mbps) mainframe interfaces; and,
- ?   the capability of moving individual agencies without disruption, i.e., business resumption testing, application problems, and naming standards for TCP/IP.

Background

Currently, over 3,000 customers are accessing the State's mainframe using TCP/IP. These customers must have TN3270 emulation client software installed and configured on their PCs before a mainframe session can be made. ITS has found that installation is being done by LAN Administrators, vendors, and individuals who use the PCs. We have also discovered that the configurations of the TN3270 client software are being done in two different ways:

- ?   Pointing to a specific IP address, i.e., CPU3 (204.113.10.13).
- •   Pointing to a Domain Name Server (DNS) which allows the customer to put in a name instead of an IP address, i.e., CPU3 (ITMF3). The DNS then converts ITMF3 to 204.113.10.13.

In October of 1999 a Technical Bulletin was distributed requesting users of TCP/IP to migrate to the use of DNS names so that "future required system changes can be made with minimal customer impact." ITS is now ready to begin the implementation of these changes. Many agencies have already made the required changes, while there are several who have not.

Implementation

ITS will begin changes that will require the exclusive and proper use of DNS names. The first step in this process will be to eliminate names that do not follow the established standard. As the planned system changes take place at ITS, the specific IP addresses that have commonly been used in the past will no longer exist since the ITS equipment associated with most of those addresses will no longer be used. Each agency should be using their assigned DNS name. As previously established,

the first two characters of a departments DNS name is their two character account code followed by MFP (MainFrame Production system) or MFT (MainFrame Test system).

The following is a list of DNSs that do not follow the standard and are planned to be deleted on the scheduled dates:

itsmf0	itsmf4	itsmfp
itsmf1	itsmf5	itsmf
itsmf2	itsmf6	
itsmf3	itsmf7	

The list of DNS names below are active now, and will be retained. Additional entries will be added upon justification by the customer. Those needing to access a specific CPU should use the DNS name that points to a specific CPU. Those DNS names are itmf$x$ where x is 0, 1, 2, 3, 4, 5, 6, 7, p, or r, depending on which mainframe needs to be accessed. Those having the need to access a departmental application should use the DNS name assigned to that department, i.e., to access CICSCJ, which interfaces with the information provided by Public Safety, use the DNS name of psmfp.

DNS Name	Department Applications
agmfp	Attorney General production
agmft	Attorney General test
bemfp	Board of Education production
camfp	State Courts production
camft	State Courts test
fimfp	Finance production
fimft	Finance test
hlmfp	Health production
hlmft	Health test
hsmfp	Human Services production
hsmft	Human Services test
itmf0	Mainframe CPU0
itmf1	Mainframe CPU1
itmf2	Mainframe CPU2
itmf3	Mainframe CPU3
itmf4	Mainframe CPU4
itmf5	Mainframe CPU5
itmf6	Mainframe CPU6
itmf7	Mainframe CPU7
itmfp	Mainframe NETP
itmfr	Mainframe NETR
ngmfp	National Guard production
nsmfp	Non-State agency customers (use only if a department application does not apply)

psmfp	Public Safety production (for use by those needing a dedicated terminal ID)
psmft	Public Safety test
rsmfp	Recovery Services production
rsmft	Recovery Services test
srmfp	State Roads production
srmfp	State Roads test
txmfp	Tax production
txmft	Tax test
wsmfp	Workforce Services production
wsmft	Workforce Services test

It should be noted that the majority of changes apply to TN3270 client software. The conversion to DNS names also applies to some application-to-application programs that communicate via TCP/IP.

Schedule

On March 10, 2001 the DNS names not following the standard that point to IP addresses in Richfield will be deleted. These include itsmf0, itsmf1, itsmf5, itsmf6, and itsmf7.

On March 24, 2001 the DNS names not following the standard that point to IP addresses in Salt Lake City will be deleted. These include itsmf2, itsmf3, itsmf4, itsmfp, and itsmf.

Beginning March 25, 2001 some DNS names will be routed thru different IP addresses than they are now using. **Those desiring to be kept current on planned changes other than what is discussed in the weekly ITS Change Meetings should email the request to Terry Mills (tmills@das.state.ut.us).**

TCP/IP Printers

Printers defined in Salt Lake City presently send the data to the printers from IP address 204.113.10.11. Prints sent from Richfield originate from IP address 204.113.10.38. Customers behind firewalls allow transmissions from those addresses to their printers. In order to allow printer data thru the firewalls from any of the mainframe computers, firewalls should be set up to additionally allow 204.113.16.0 with a mask of 255.255.255.0. Changes affecting the printers will take place after the DNS names have been appropriately changed.

Updating Client DNS Properties on Personal Computer (PC)

Customers who are directly connected to the State wide area network (WAN) should set the DNS properties on their PCs to include the IP addresses of the state primary and secondary DNS servers. The Domain Name is state.us.us (unless the agency is using a delegated sub-domain). The IP address for the primary DNS server is 204.113.1.10. It is called ns1.state.ut.us. The IP address for the secondary DNS server is 161.119.51.129. It is called ns2.state.ut.us. If an agency is running their own DNS server for a delegated sub-domain under "state.ut.us", the client should add the agency's DNS server

as the first entry. The state DNS servers can be included as the 2nd and 3rd entries in this case. Contact your LAN Administrator for specific questions on how to set up your PC.

Contacts

If connectivity failures occur that are suspected to be DNS name associated, terminal users should first contact their department LAN administrator or help desk. If no resolution is reached,
a trouble report should be generated by contacting the ITS Help Desk (538-3440).

Questions and Concerns

Any issues or concerns about the changes referred to in this bulletin should be addressed to Terry Mills (email: tmills@das.state.ut.us; phone: 538-3448) or Mike Mower (email: mmower@das.state.ut.us; phone: 538-3445). Those who have already made the requested changes should see no impact from any of these changes.

_____